

# DOCUMENT RESUME

ED 065 482

24

SP 005 809

AUTHOR Johnson, Norman C.  
TITLE Implication of the Bureau of Research Teacher Education Project for Developing Institutions. Final Report.  
SPONS AGENCY National Center for Educational Research and Development (DHEW/OE), Washington, D.C.  
BUREAU NO BR-9-8033  
PUB DATE May 72  
GRANT OEG-0-9-438033-4314 (010)  
NOTE 42p.  
EDRS PRICE MF-\$0.65 HC-\$3.29  
DESCRIPTORS \*Educational Development; \*Educational Programs; \*Elementary Education; Instructional Innovation; \*Models; \*Teacher Education; Teacher Education Curriculum  
IDENTIFIERS North Carolina Central University

## ABSTRACT

The North Carolina Central University (NCCU) faculty in elementary education began a systematic study of The Comprehensive Elementary Teacher Education Models. Seminars, informal discussions, and on-site visits to model builder schools were used as instruments to review the models and formulate a viable program. The model developed for NCCU was composed of a general description of bases for instructional planning concerning student status, competencies to be developed, and experience by year. The format of each module included behavioral objectives, purpose, learning alternatives, resources, and evaluation. Other components stressed in the model were tutorial experience, learning laboratories, and clinical experience. A summary of activities of the Consortium of Southern Colleges for Teacher Education shows movement toward the goal of assessing the feasibility of the models and the implementation of the programmatic ideas. A conference summary, presenting results of discussions, alternatives, and resolutions is presented. Appendixes include material for course work. (MJM)

ED 065482

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
OFFICE OF EDUCATION  
THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIG-  
INATING IT. POINTS OF VIEW OR OPIN-  
IONS STATED DO NOT NECESSARILY  
REPRESENT OFFICIAL OFFICE OF EDU-  
CATION POSITION OR POLICY.

Final Report

Project No. 9-8033  
Grant No. OEG-0-9-438033-4314 (010)

Norman C. Johnson  
North Carolina Central University  
Durham, North Carolina 27707

IMPLICATION OF THE BUREAU OF RESEARCH TEACHER EDUCATION PROJECT FOR  
DEVELOPING INSTITUTIONS

FILMED FROM BEST AVAILABLE COPY

May, 1972

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

National Center for Educational Research and Development

SP 005809

## INTRODUCTION

Schools of today are faced with the task of reshaping their programs to meet the demands of the technological, socio-cultural forces impinging upon society. It is important that schools prepare children to face the demands of society, to meet the challenge of change, and to cope with the ever increasing problems of environmental natures.

Schools and teachers have traditionally failed to prepare students to solve the problems alluded to above. Methods and techniques of study and teaching have not been flexible enough to accommodate change and renew skills and abilities of the learners. Change is needed. New methods and techniques must be discovered and employed.

Recently, the appeal for accountability through individualizing instruction and using systematic objective approaches to teaching are being heard.

Programs for the preparation of teachers have been notoriously bland and traditional. Nearly all have followed the pattern of "X" number of hours in general education, "X" number of hours in professional education, and "X" number of hours in teaching areas. Students have been lectured to and told how to teach with no real concern about a developmental program of demonstrated student competence. These programs have produced few teachers capable of coping with change--teachers who teach as they were taught regardless of whether or not students learn.

Among the efforts to correct this situation, the Bureau of Research of the U.S. Office of Education proposed and sponsored a teacher education project from which resulted in the development of ten (10) comprehensive Model Elementary Teacher Education Programs. All of these programs were

characterized by elements of individualized instruction, modular curricula, differentiated staffing, demonstrated performance capability, and flexibility of time and method. In addition to this effort, in June of 1969 the Bureau of Research invited ten (10) relatively small developing schools in the South to assess the feasibility of the Models or parts of the Models for implementation at small developing institutions. This University, then North Carolina College, was among that group.

Simultaneously, the North Carolina Central University's teacher education department had just been authorized by the State of North Carolina, to offer a program in undergraduate elementary education, and welcomed to the chance to look into new and promising ideas for the development of an effective, functional program.

#### Statement of the Problem

The proposal submitted in 1969, and subsequently extended for another fiscal year, had the following developmental problem:

1. To engage in continued intensive study of the models and feasibility studies associated with models
2. To implement selected portions of a performance-based teacher education curriculum
3. To carry out inservice retraining of faculty
4. To disseminate information about the study and implementation of innovations in performance-based teacher education to Consortium and other schools

#### Study Procedures and Activities

The procedures employed in completing this research and development project were as follows:

1. Orient Education Department faculty as well as entire college faculty
2. Review the summaries of the 9 model elementary programs
3. Select promising ideas, from one or more model programs, that seem to have high potential for elementary programs at North Carolina College
4. Review the proposals which encompass ideas identified
5. Orient teacher education faculty to promising ideas identified

6. Establish liaison with appropriate developers of models from which promising ideas have been gleaned
7. Identify consulting personnel on the promising ideas
8. Organize and implement seminars and workshops utilizing local staff and consultative help for the purpose of understanding the program and program idea and studying the feasibility of implementing selected ideas in the new North Carolina College programs.
9. Coordinate activities of workshops and seminars as well as other activities with other institutions involved in similar studies
10. Extend base of participation to other developing schools on a consortium basis
11. Secure release time for staff planning, development, and program writing

Several factors figured prominently in the study and in the subsequent development of elementary program components. Among them were faculty size, facilities, student needs for the program, budgetary constraints, etc.

Three major divisions of activities were involved in the completion of this project:

1. Faculty Orientation the Models
2. The Development of the Local North Carolina Central University Model
3. The Development of Modules and other Program Components

The North Carolina Central University faculty in elementary education began a systematic study of the models in 1969, and in seminars and informal discussions, sifted out elements and ideas which would be useful and viable within the constraint matrix indigenous to the University. Some staff member(s) visited all the Model builder schools and became knowledgeable about models at the grass roots level.

Reviews of the models were presented to the Elementary faculty. The ideas of interaction analysis, micro-teaching, systems analysis, simulation, behavior objectives, and modular curricula began to emerge as common elements and viable ideas for a model which could evolve at the University.

Regular weekly meetings devoted to generating a total program and writing modules (originally called performance criteria in the North Carolina Central University) were held. The faculty attended workshops and conferences sponsored by the Consortium of Southern Colleges of Teacher Education in Durham, North Carolina; New Orleans, Louisiana; Livingston, Alabama; and numerous other regional and national meetings in which one or more of the "new" ideas mentioned above were of primary concern.

#### PLANNING THE MODEL

In planning the elementary education program model at North Carolina Central University, the faculty used the following general plan:

1. The tentative program's general goals and components were identified through faculty - student - public school teacher - administrator - parent conferences

Several conferences of a relatively large group of persons referred to above were convened for several sessions. General aspirations, goals, ideals, and specific teacher competencies were aired and lists of common objectives were identified

2. A visual, graphic, conceptual framework was developed for the program. Four basic program components were identified from the discussions and brainstorming sessions. They were:

- a. General Education
- b. Teaching Specialty(ies)
- c. Professional Knowledge, Skills, Abilities
- d. Professional Human Interaction Skills

3. Finally, resources and necessary support systems for the program were thought through:

- a. Management Systems
- b. Adequate Financial Base
- c. Personnel
- d. Physical Facilities
- e. Media

## GENERAL DESCRIPTION OF BASES FOR INSTRUCTIONAL PLANNING

### Student Status, Competencies to be Developed, and Experiences by Year

#### Freshmen Status

1. Secure SAT score
2. Secure personality measure
3. Secure speech and hearing screening measure
4. Secure demographic data
5. Secure measure of interests
6. Secure reading skills measure

#### Behaviors to Develop in Freshmen

1. Improve speech
2. Improve reading skill
3. Improve skills related to learning by self-instruction
4. Orient to public schools
5. Improve in chartering college career
6. Make decision about teaching
7. Know how to use the institution's resources
8. Has improved in understanding self and relating to others

#### Freshmen Experiences

1. Field trips
2. Incidental observation
3. Interviews with professionals
4. Reading
5. Seminars
6. Counseling
7. Participation in SNEA
8. Attend general orientation lectures and professional activities
9. Writing research papers

#### Sophomore Status

(Note Freshman Status and Behaviors)

#### Behavior to Develop in Sophomores

1. Can communicate effectively in written and oral form
2. Can read with proficiency
3. Has made final decisions about teaching as a career
4. Knows the teacher education program

5. Relates his general education program choices to his own development
6. Utilizes effectively the learning resources of the University
7. Has active involvement with children
8. Has active involvement with public institutions
9. Can operate teaching machines
10. Can operate selected audiovisual equipment
11. Can construct single lessons for a tutoring situation
12. Can use selected machines in tutoring
13. Can do self analysis in human interaction situation
14. Can analyze results of inventories
15. Knows functions and some problems of public education
16. Can affect learning on a one-to-one basis
17. Can construct simple teaching materials
18. Can write limited measurable objectives for a child
19. Can keep a learning progress record
20. Can establish rapport with a student
21. Can locate teaching materials in standard reference sources
22. Can observe and make some simple interpretation of human behavior

#### Sophomore Experiences

1. Tutoring in college settings
2. Tutoring in public school settings
3. Tutoring in other settings
4. Reading
5. Observing
6. Practices using different machines
7. Lectures and demonstrations by faculty
8. Media
9. SNEA and other professional activities

#### Junior Status

(Note Behaviors to Develop During the Freshman and Sophomore Years)

#### Behaviors to Develop in Juniors

1. Ability to analyze learning ability of a child
2. Ability to analyze learning potential of a child
3. Ability to keep standard N. C. classroom register
4. Ability to keep cumulative folders
5. Ability to plan limited units and lessons utilizing an individualized approach
6. Ability to write behavioral objectives
7. Ability to evaluate in terms of Objectives Standard tests and Teacher-Made tests



8. Ability to provide adequately for classroom routine
9. Ability to use selected teaching experiences such as field trips, filmstrips, motion pictures, television, recording, textbooks, and library resources
10. Ability to select and evaluate commercial teaching materials
11. Knowledgeable about current professional organizations and their activities
12. Active participation in SNEA activities
13. Knowledgeable about organization of American education
14. Knowledgeable about new trends and developments in education

#### Junior Experiences

1. Read professional literature
2. Observe training films
3. Participate in simulative exercises
4. Participate in tutoring and small group teaching activities
5. Construct test
6. Interpret tests
7. Observe in incidental and controlled situations
8. Group children for instruction
9. Micro teaching
10. Simulation Problems Laboratory
11. Write units and lesson plans
12. Read about factors influencing lesson and unit planning
13. Observe unit teaching
14. Simulate presentation of a unit
15. Practice arranging comfortable, attractive learning environment

#### Senior Status

(Note Behaviors to be Developed at Year 1, 2, and 3)

#### Behaviors to Develop in Seniors

1. Ability to plan learning experiences taking a number of variables into consideration (for example, considering student characteristics, community-school resources, faculty, etc.)
2. Ability to select, make, and compile resources for teaching extended resource units
3. Ability to do long-range planning
4. Ability to evaluate in terms of childrens' work, conferences, analysis of the individual child
5. Ability to manage the classroom by adequate scheduling of activities adequate for discipline

6. Ability to employ the following "teaching techniques":
  - The project method
  - Multimedia presentation
  - Various kinds of discussions
  - Use of human resources
7. Develop self-discipline in children through adequate study skills, use of time, goal setting, problem solving, etc.
8. Ability to select appropriate media for concept learning, principle learning, and problem-solving learning
9. Increased knowledge of professional ethical behavior
10. Increased awareness of current trends in education
11. Ability to establish good relations between school and community
12. Write behavior objectives and plan instructional modules

#### Senior Experiences

1. Read the professional literature in all areas of concern
2. Engage in full-time internship, teaching small and large groups
3. Engage in full-time observation
4. View audiovisual material appropriate for behaviors to be developed
5. Simulation laboratory
6. Write modules and module clusters for units of work
7. Prepare anecdote records
8. Interpret sociograms
9. Conduct real or simulated teacher-pupil and parent-teacher conferences
10. Evaluate Teacher-Made tests
11. Evaluate Standardized tests
12. Evaluate anecdotes
13. Field trips to libraries, supply houses, and materials centers

STATEMENT ON ELEMENTS OF THE PROGRAM AS CONCEPTUALIZED

Modular Curriculum:

The modules to be developed for the curriculum were to follow the idea of a performance criterion (P.C.)

Each module was to have a stated purpose, task conditions for the performance of the required behavior, and resources samples of some "first tries" are in the appendix of this report. The current format for the modules is now somewhat different.

Behavioral Objective(s)  
(Pretest Optional)

Purpose

Learning Alternatives

Resources

Past Test (Evaluation)

### TUTORIAL EXPERIENCE

The SNEA at the University has an early field experience program which will serve as the model for providing extensive tutoring opportunities for the elementary education majors. The experiences are planned to be for one and two students only. Students will tutor both on campus and at selected sites as required. It is expected that both on a volunteer and supervised basis the tutoring experience will meet many of the behavioral goals projected for the program.

### LEARNING LABORATORIES

A laboratory for individualized instruction has been established to support the developing program.

A 20 carrel lab and a one camera simulation lab makes up the learning lab facilities. Media which can be used by students in the labs includes slides, tapes, cartridges, 8 mm motion pictures, 8 mm loops, 16 mm motion pictures, books, vertical file materials, video tape recorder and tape recorder.

In addition to the laboratories established, an instructional materials production laboratory of long standing is to be made use of by students in the program.

### CLINICAL EXPERIENCE COMPONENT

The clinical experience component of the N.C.C.U. model will be a 4 year sequential program designed to move the student from "no teaching skill" to competence. The student will progress from observation to routine management tasks and tutoring experiences to assistant teacher activities to full time internship. This component will be tested in 1972-73.

### ACTIVITIES OF THE CONSORTIUM

A summary of significant activity of the Consortium of Southern Colleges for Teacher Education shows movement toward the goal of assessing the feasibility of the Models and the implementation of programmatic ideas.

In July, 1969 a two-day conference held in Durham, North Carolina featured an overview of the models and a general consideration of the status of the feasibility studies at each of the Consortium Schools. A copy of the program of activities follows:

#### PROGRAM OF ACTIVITIES

July 11 - 12, 1969

FRIDAY, July 11, 1969

8:00 - 9:00 a.m.	Breakfast in the Wedgewood Room
9:00 - 9:10 a.m.	Greetings and Orientation
	Dr. Norman C. Johnson Conference Coordinator
	Dr. James Steffensen, Acting Chief Organization and Administration Studies Branch Division of Elementary and Secondary Education Research
9:10 - 11:10 a.m.	General Session - "The Ten Colleges Present"
11:10 - 11:30 a.m.	Coffee Break
11:30 a.m. - 1:00 p.m.	General Session - Overview of the Nine Models Room 102
	Dr. Bruce Joyce Teachers College Columbia University
1:00 - 2:00 p.m.	Luncheon in the Wedgewood Room
	Keynote Speaker, Dr. Robert Schaefer, Dean Teachers College Columbia University

With the written, spoken, and implied intent to share information gleaned from the threshing floor of innovative teacher education, representatives from these institutions engage in serious impassioned discourse pertaining to (1) explanations of time spent in such pursuits as model-study and conferencing, (2) endless meetings with as-yet-unconvinced administrations, (3) interminable struggles with the new language of education's brave new world, and (4) seemingly insurmountable dollars-and-cents difficulties and numerous other barriers that plague one and all. Although the belief must prevail that there are some solutions hidden in the throes of this academic conquest, still our program directors and their cohorts are wont to seek that tender love and care that makes the misery more companionable - if not less miserable.

In spite of the various plights that were expounded upon at this conference, there seemed to be a common core made up of items that at least point toward some areas of major concern for those who would further the now questioned programs for educating the nation's teachers. One of these areas that was "rediscovered" in what nearly everyone had to say was the element so aptly described by the Syracuse model as protocoperation. This is proposed in all models and is just beginning to make a significant impact on the developmental procedures of the conferees. The fact that school, home, community, industry, etc. contributes both helps and hindrances has been shown to be crucial to the implementation of innovative educational practices.

A second theme that seemed to grow stronger since our last meeting was that each of the so-called developing institutions have found it necessary to build their own specifically individual program model. This evolved not only

With the written, spoken, and implied intent to share information gleaned from the threshing floor of innovative teacher education, representatives from these institutions engage in serious impassioned discourse pertaining to (1) explanations of time spent in such pursuits as model-study and conferencing, (2) endless meetings with as-yet-unconvinced administrations, (3) interminable struggles with the new language of education's brave new world, and (4) seemingly insurmountable dollars-and-cents difficulties and numerous other barriers that plague one and all. Although the belief must prevail that there are some solutions hidden in the throes of this academic conquest, still our program directors and their cohorts are wont to seek that tender love and care that makes the misery more companionable - if not less miserable.

In spite of the various plights that were expounded upon at this conference, there seemed to be a common core made up of items that at least point toward some areas of major concern for those who would further the now questioned programs for educating the nation's teachers. One of these areas that was "rediscovered" in what nearly everyone had to say was the element so aptly described by the Syracuse model as protocoooperation. This is proposed in all models and is just beginning to make a significant impact on the developmental procedures of the conferees. The fact that school, home, community, industry, etc. contributes both helps and hindrances has been shown to be crucial to the implementation of innovative educational practices.

A second theme that seemed to grow stronger since our last meeting was that each of the so-called developing institutions have found it necessary to build their own specifically individual program model. This evolved not only



from the major concerns of staff and facilities which differ, but from the less obvious factors such as attitudes, backgrounds, academic histories, and orientations that are so diverse in the various schools and geographic areas.

Included in the institutional facilities are the financial resources of the institutions and this variable appeared to be a key factor in the feasibility of program implementation. The fatherly model directors shared all the cost factors that developed in their recently completed Phase II work and this provided a base, of sorts, on which to compute local costs for the smaller colleges. Whether the innovative route could be traveled by the VW or the Cadillac mode appears to depend on not only money, staff, and facilities, but the orientation of the individual institution and the management techniques built into the different models.

It also came through quite clearly that there is a community impact that results from the changes in higher education and interaction with the public school systems. This impact can again be softened by preliminary planning that includes, to the optimum degree, all parties to be affected. We can only hope that it is not too late for some of the more advanced developers to accomplish this vital step.

As a part of the above mentioned problem, the need for bridge construction between the traditional and the innovative in all areas loomed large as the various representatives spoke. Perhaps too many assumptions have been made within the immediate staffs of the colleges as to the degree to which the information on competency-based programs has really been disseminated. It appeared that at times even the team members at the conference were not totally knowledgeable about the music to which their compatriots were marching. More communication of all of the programs to local campus personnel



seems to be in order.

Another factor that needs some immediate attention seems to be the ways in which outside help can be used. This was brought to light unmistakably when Joel Burdin from ERIC offered a brief (just-before-plane-time) overview of the resources available in his domain. All of the developing institutions receive letters, brochures, and some consultative information but the actual incorporation of these valuable assets as a functioning part of the on-going programs has been unaccountably missing. Productive investigation here probably can pay big dividends.

Finally, a consensus seemed to develop over the 3-day period on the necessity for immediate moves to establish some form of an innovative program component in order to generate sorely-needed feedback. As long as the procedures remain theoretical and are analyzed only by the conferees and their close cohorts, the feedback system is going to be severely limited. This has all been good but practical, functional criticism that comes primarily from actual operation is imperative if the rough edges are to be smoothed and teacher education truly improved when we need it - like now. The sharing problems and solutions to these issues (if and when available) has been good and more of the same is indicated. Time to work and time to talk about the working has to be proportioned so that information gained today can be used tomorrow.

There appeared to be a genuine motivation toward progress and the emphatic, as well as sympathetic, attitudes demonstrated by all participants underscored their sincere concern for helping others as well as themselves. The investment of time, effort, and money in these endeavors has paid off handsomely in personal as well as academic growth and is to be encouraged to the extent that existing resources are available.

In July 1970 the Consortium met with Model Directors in Asilomar, California and several significant decisions about the Consortium activity were made. Some of them were:

1. The group decided to establish a stronger consortium with an administrative committee and a central office for carrying on and coordinating the activities of the group. To these ends, E. C. Powell of Jarvis College, Howard Fortney of Livingston University, and M. Sharif Hafiz of Norfolk State College were elected as the Board of Directors for the consortium. This board was empowered to act as a decision-making body for the consortium. E. C. Powell was named chairman.
2. Norman C. Johnson of North Carolina Central University was elected Executive Secretary, and was empowered to establish an office for the administration of consortium affairs with a one-half time secretary at an approximate salary of \$2,500 per annum paid from consortium funds.
3. A committee to help insure continued funding and additional funding for the group was elected.

Dr. C. J. Dyer, Chairman (NCCU)  
 Dr. N. M. McMillan (Shaw University)  
 Dr. Pearlle Dove (Clark College)

The responsibility of this committee was described as seeking , through public and private agencies, sources of funds for continued operation of the alliance for study and innovation in elementary education already established by the group.

4. One task identified for the consortium for the coming school year was much closer cooperation in terms of sharing administrative and program know-how. It was generally agreed that, through central office coordination, all schools would disseminate information relative to all activities and instructional materials or events at the member school. Such information will be indexed for rapid retrieval and disseminated to all other member schools. Broad categories for indexing were suggested (media, hardware, support systems, etc.).
5. It was noted that the group needed more visibility in the Bureau of EPD as well as within many other agencies with professional programs in elementary education. A publications program and a public relations program were mentioned. Extending and expanding services to other schools were seen as ways of gaining visibility as well as ways of contributing to the professional growth of the consortium members.

6. Clarified and closer relationship between the Bureau of Research, Teacher Corps, and the Bureau of EPD were discussed with Directors Steffenson, Graham, and Bigelow. (a) Information and materials generated in Teacher Corps Programs were to be shared with the consortium. (b) Input into regionally sponsored bureau conferences was agreed to be a desirable and needed consortium activity. (c) Development and training were seen as new thrusts compatible with consortium goals since the models now being implemented in part through EPD Bureau programs. (d) Support from Steffenson's office was seen as a continuing and welcomed possibility.
7. A decision was made to hold a work conference in the fall--mid-November. Most members seemed to prefer weekend conferences or Thursday and Friday conferences. Agenda items suggested were:
  - a. consortium sub-committee reports on both funding and research
  - b. publications
  - c. new research projects

In January 1971, a most successful consortium conference was held at Livingston University, Livingston, Alabama. A summary of that conference follows:

"In the spring and summer of 1967, the U. S. Office of Education formulated the strategy for the elementary teacher training project, and in October, 1967, proposals for the project were invited. The project to be furnished was entitled 'Educational Specifications for a Comprehensive Undergraduate and In-service Teacher Education Program for Elementary Teachers.' Ten projects were received from: Florida State University, University of Georgia, University of Massachusetts, Michigan State University, Northwest Regional Educational Laboratory, University of Pittsburgh, Syracuse University, Teachers College, Columbia University, and the University of Toledo. The University of Wisconsin prepared specifications utilizing its own resources.

"In June, 1969, the Bureau of Research commissioned ten relatively small southern colleges to combine in a consortium to examine, on an empirical and pilot basis, the applicability of the models or components of the models for institutions of limited resources.

The ten institutions had been classified previously as developing or emerging institutions and each had indicated to the bureau that they were interested in developing their teacher education programs. These ten institutions, known as The Consortium of Southern Colleges for Teacher Education, were: Clark College, Florida Agricultural and Mechanical University, Jarvis Christian College, Livingston University, Norfolk State College, North Carolina Central University, Shaw University, South Carolina State College, Tennessee State University, and Xavier University. The headquarters of the Consortium are housed at North Carolina Central University, in Durham, North Carolina. The Consortium selected the first year of operation as the year for planning for development of programs and in the second year of operation, presently in progress, the theme of the Consortium consisted of implementing segments of performance-based teacher education as represented in the various elementary education models.

"The executive board of the Consortium planned a conference that was to be held on January 10 - 13 at Livingston, Alabama, on the campus of Livingston University. The objectives of the conference were as follows:

To prepare conferees for implementing elements of performance-based teacher education by:

- a. Sharing experiences by each Consortium member in their programs of development and implementation.
- b. Reviewing commercially prepared materials that are suitable for developing individualized approaches to teacher education.
- c. Studying and discussing modules that have been developed by other institutions.
- d. Planning viable approaches to the improvement of instruction in teacher education through clinical experiences, simulation and teacher education laboratories.
- e. Observing students and faculty as they proceed through modularized performance-based programs in teacher education.
- f. Acquiring new knowledges concerning systems design and the use of systems in designing and implementing programs in teacher education.

"There were one hundred nine (109) participants in the conference which represented twenty-four (24) institutions of higher education throughout the United States. Other associations and groups that were represented were:

- The American Association of Colleges for Teacher Education
- The Alabama Education Association
- The Alabama Association of Classroom Teachers
- The Alabama Department of Elementary School Principals
- The U.S. Office of Education (3 members)
- The Alabama State Department of Education
- The Alabama Educational Television Network
- Various Newspapers

The keynote address for the conference was delivered by Dr. Harold Taylor, whose topic was, "Teaching in a Revolution." Other addresses were given by Dr. J. Marvin Cook, "Making Evaluation Work," and Dr. John E. Deloney, "The Future of Emerging Institutions." The conference was arranged as a learning experience with small group sessions which included the following:

1. Films on "Teaching Problems Laboratory"
2. Films on "Technical Skills of Teaching"
3. Writing Behavioral Objectives
4. Developing competency in interaction analysis
5. Demonstration of a learning center in operation
6. Implementing components of professional laboratory experiences for elementary education majors and field testing clinical type experiences beyond the freshman year.
7. Planning content of traditional professional education courses for a performance-based program that is modularized
8. Human relations promoting interpersonal communication for teachers.
9. Developing an hierarchy of content suitable for achieving behavioral objectives
10. Motivation theory for teachers and reinforcement theory for teachers.
11. Demonstration of completed modules
12. Orientation to performance-based teacher education
13. Developing a competency-based program in teacher education

Each participant had the option of choosing seven small groups for the group sessions. Each small group session lasted one and one-half hours. In addition to the general sessions and the small group sessions, there was a panel discussion and a meeting of the project directors on the last day of the conference.

Each Consortium member was encouraged to send at least five conferees to the conference. The participants were housed in campus housing on the Livingston University campus and meals were provided in the college cafeteria.

The participants of the conference were requested to evaluate the conference with regard to the objectives. The study of the evaluations revealed the following:

1. The participants were unanimous in their evaluation in that they felt that the sharing of experiences had been very worthwhile.
2. They had reviewed commercially prepared materials. A few participants indicated that they wished that there had been more prepared materials.
3. The study and discussion of modules prepared by other institutions was most satisfactory.
4. The participants were satisfied that the group sessions presented viable approaches that they could utilize when they returned home to begin implementing performance-based teacher education programs.
5. The participants were satisfied with the observations of students and faculty as the students moved through individualized instructional modules.
6. Most of the participants were satisfied with the use of systems in designing new programs in teacher education. Some participants expressed a desire to have more systems analysis at another conference. They also expressed a desire to have more work in developing performance criteria and further work in evaluation.
7. All participants expressed satisfaction with the conference, the organization of the conference, and with the hospitality at Livingston University."

APPENDIX



## EDUCATION 200

### Minicourse: Structure, Responsibilities and Support of Public Education in the United States of America

#### I N T R O D U C A T I O N

The purpose of the minicourse is to enable the student to understand the institutional framework of public education within which the teacher operates.

There are three required P.C.'s: #900, 901, and 902. The behavioral objectives in each P.C. may be attained by either one of the two following routes.

Route A. Attend 2 lectures and/or listen to the taped lectures in the Learning Center, participate in 2 seminars and independent study until the student is prepared to demonstrate competence as described in the behavioral objectives of the three P.C.'s. The student will bring his study notes on each behavioral objective, and the discussion topics to the seminars.

Route B. Independent study culminating in written evidence to the student's study as qualification to participate in the minicourse evaluation. The study will include written answers to each behavioral objective and statements on the discussion topics.

The evaluation sessions will be given on scheduled (see calendar) to those students who have completed route A and those taking route B who have presented evidence of study to the instructor and has received permission to take the test.

Other evaluation sessions will be scheduled later by individual appointment.

The student will be evaluated on the basis of 3 part objective test, corresponding to each P.C. in the minicourse. Competency must be achieved at the B level.



EDUCATION 200

Minicourse: Structure, Responsibilities and Support of  
Public Education in the United States of America

P.C. #900 Required

Content Category: Responsibilities, Administration, and Organization of  
Federal, State and Local Government for Public  
Education.

Prerequisites: None

Purpose: To enable the student (1) to understand the role of government  
at each level in the establishment and regulation of public  
education, and (2) to understand the way in which governmental  
agencies have organized to achieve the goals of public education.

Behavioral Objectives: The student will have met the requirements of this  
P.C. when he can successfully demonstrate the  
following behaviors on an objective test:

1. Identify from a list the primary responsibilities of the  
following government agencies for public education

Federal Government

Congress  
Department of Health, Education and Welfare  
United States Office of Education

State Government

Legislature  
State Board of Education  
State Department of Public Instruction

Local, County and City Government

City Council and/or County Commissioners  
Board of Education

2. Complete in written form organizational charts which require the  
utilization of information on appointments and relationships  
between the various levels.
3. Write a critical review of methods of selection of chief school  
administration officers at the state level, at the local level.  
(State Board of Education, State Superintendent of Public In-  
struction, Local School Board, Local Superintendent of Schools.)

P.C. 900 Continued

4. Explain<sup>why</sup> the NEA and many lay citizens are asking that the United States Office of Education be removed from the Department of HEW and be made a separate Department with a Secretary of Education as a member of the Cabinet?

Learning Activities

1. Study from the following sources and keep notes for class discussion (route A) or individual evaluation (route B).
  - A. Textbooks (Full title and location of books on bibliography)

Burrup, 52-96; 115-141  
Crary and Petrone, 123-141  
Chamberlain, 23-79  
DeYoung (5th. ed.) 40-125  
Drayer, 311-342  
Fraser, 151-238  
Grieder, 375-432  
Haskew, 121-250

Hicks, 257-293  
Hughes, 265-344  
Johansen, 121-142  
Power, 63-108  
Rickey, 333-352; 451-530  
Selakovich, 183-219  
Van Til

Or any foundations of education textbook of the student's choice.

B. Overhead projectuals in the Learning Center, labeled P.C. #900

C. Articles reproduced and in folder in Learning Center, labeled P.C. #900.

2. Attend the lecture P.C. 900-901 and/or listen to the tape in the Learning Center to gain a broad overview of the school and critical issues which may have an impact upon your decision to teach. (Tape; Organization of American Education by B.wade).

3. Prepare to discuss the following critical issues in education. Most of the textbooks on the bibliography will discuss some aspects of the issues. Preparation may also include interviews with lay citizens and professional educators.

A. What are the advantages and disadvantages for the methods (appointive and elective) of selecting chief state school officers and the members of state and local school boards?

B. Many citizens are concerned about federal encroachment on public schools within the past 10 to 15 years, saying the federal government has interfered with the states' legal rights, and traditional responsibility for the operation of schools. New roles for the federal government have resulted from such legislation as the Civil Rights Bill, the "Great Society" programs of the ESEA (Elementary Secondary Education Act), NDEA (National Defense Education Act), Manpower Training Acts, etc. What are the different points of view regarding the role of the federal government in education. What new roles for the federal government do you feel may be necessary at this period in history?

- C. Many citizens insist that local autonomy in school matters is the only constitutional way to administer schools. Discuss this issue on the basis of equalization of funds to all schools, and the denial of an individual's rights to use his resources for the best interest of his family and community. Discuss this issue in terms of teacher's rights and responsibilities as members of a profession who should be at the "beck and call" of non-professionals on local lay boards of education.
- 4. Attend a seminar for P.C. 900-901  
Small seminars of 12-15 students with an instructor of the team will be scheduled. The behavioral objectives and above topics will be discussed by the students and the instructor. Bring your study notes and bibliography of references used. Schedules for seminars will be posted in the Learning Center.

Evaluation: See Introduction

EDUCATION 200

Minicourse: Structure, Responsibilities and Support of  
Public Education in the United States of America

P.C. #901 Required

Content Category: The legal basis and the means of financial support for  
public education at each governmental level.

Prerequisites: P.C. #900

Purpose: To enable the student to understand the legal bases and the financial bases for public education at each level of government.

Behavioral Objectives: The student will have met the requirements of this P.C. when he can successfully demonstrate the following behavioral objective test.

1. Name the legal bases in the United States Constitution for the provision of federal and state support of public education.
2. Demonstrate understanding of the legal bases, by illustrating with an appropriate interpretation or application of each.
3. Correctly identify the most common sources of financial support at all governmental levels.
4. Identify valid arguments for tax support of public education.
5. Discriminate between valid and invalid arguments for state equalization funds to local districts, and for national equalization funds to states.

Learning Activities:

1. Study from the following sources and keep notes for class discussion (route A) or individual evaluation (route B).  
A. Textbooks (Full title and location of books on bibliography)

Bolassi, 120-132  
Burrup, 311-329-  
Crary & Petrone, 129-140  
DeYoung, 143-158  
Draver, 347-364  
Fraser, 113-150  
Grieder, 410-

Haskew, 128,-134; 232-255  
Hicks, 79-83  
Hughes, 290-296; 302-330  
Johansen, 143-158  
Kneller, 455-477  
Richey, 294-332; 451-530  
Stone, 242-243

Van Til, 240-260

A foundations textbook of the student's choice.

P.C. #901 Continued.

- B. Reproductions of articles in Learning Center in folder labeled P.C. #901.
- 2. Attend a lecture, P.C. 900-901 as scheduled and/or listen to the tape in the Learning Center. (Tape: Organization of American Education by B. Wade)
- 3. Prepare to discuss the following critical issues in education:
  - A. Should all citizens be taxed to support public schools even though their children attend private or parochial (Church related) schools? List arguments the group considers valid one.
  - B. In the past few years public support of schools had declined, evidenced by the number of local communities which have defeated measures to increase local school taxes. What forces do you think are responsible? What solutions can you offer?
  - C. It is rumored that President Nixon will ask Congress to pass a national "Value-added Tax" to replace local property taxes to support schools. What is a value-added tax? What are the pro and con arguments for this method of financing schools?
  - D. Does compulsory school attendance violate (1) a parent's rights, (2) the pupil's human rights, (3) the freedom's guaranteed in a democracy? Defend your position.
- 4. Attend a seminar  
Small seminars (copy from P.C. 900)

Evaluation: See Introduction

EDUCATION 200

**Minicourse: Structure, Responsibilities and Support of  
Public Education in the United States of America**

P.C. #902 Required

Prerequisite: None

**Purpose:** To acquaint the student with (1) the purposes of American Education from pre-elementary to higher education, (2) the variety of organizational patterns which have been established to achieve those purposes.

**Behavioral Objectives:** The student will have met the requirements of this P.C. when he can successfully demonstrate the following behaviors on an objective test.

1. Compare and contrast the major purpose of public education in America, today with those in vogue at other eras in America's history; Colonial period, National period, Industrial Revolution, and the first part of this century.
2. Assign from a list of objectives for public education those which are the primary responsibilities at each of the major subdivisions:

Pre-elementary: Nursery and Kindergarten  
Elementary  
Middle School  
Junior High  
Senior High

Post Secondary: Junior college, community college, colleges and universities. (Different purposes for each.)

3. What are the most common advantages given for the following organizational patterns:

Graded School (1st grade, 2nd grade, 3rd grade through 12th grade).

Non graded school (Continuous progress through a sequential program).

Middle School  
Junior High School  
Self-contained elementary classroom  
Departmentalization

Learning Activities

Study from the following sources and keep notes for class discussion (route A) or individual evaluation (route B).

P.C. #900 Continued

A. Textbooks (Full title and location of books on bibliography)

Abraham, 24-29; 69-91  
Purup, 96- 112  
Callahan, 204  
Crary & Petrone, 73-75; 83-85; 86-92  
DeYoung, 126-222; 14-29  
Drayer, 12-18  
Fraser, 151-233  
Grambs, 139-146  
Grieder, 125-368  
Hughes, 367-388  
Johannes, 1-58- 91-115  
Kneller, 543-551  
Power, 133-233  
Richey, 353-373  
Stone, 24-45  
Van Til, 23-56

Other foundations of education textbooks of student's choice.

B. Articles reproduced in Learning Center in folder labeled  
P.C. #902.

C. Overhead projectuals in the Learning Center, labeled P.C. #902

2. Attend a lecture P.C. 902 as scheduled and/or listen to the tape in the Learning Center. (Tape: The Education Ladder and Purposes of American Education by B. Wade)
3. Prepare to discuss the following critical issues in education.

- A. What do you consider the most imperative purpose of public education in America today if the schools are to meet their traditional goals of (1) serving the society by preparing the kinds of citizens needed, and (2) serving the individual, through self-fulfillment, by helping each to reach his maximum potential and his own goals in life.

List your purposes in order of group priority.

- B. Taxpayers are being asked not only to extend the 12 year free public school down to include the pre-elementary years, but also to extend it upward to include at least two years of post secondary education. For what reasons would you vote or not vote the taxes and bonds to adequately support both extensions?

- C. Higher education until very recently has served only a selected number of the most able students. In what ways should higher education change if it, too, is to adequately serve an ever larger number of people, many who will not be able to accomplish the traditional requirements of higher education

4. Attend a seminar

Small seminars of 12-15 students with an instructor of the team will be scheduled. The behavioral objectives and above topics will be discussed by the students and the instructor. Bring your study notes and bibliography of references used. Schedules for seminars will be posted in the Learning Center

Evaluation: See Introduction



Education 200

Minicourse: Structure, Responsibilities and Support of  
Public Education in the United States of America

BIBLIOGRAPHY

(Reference Books)

- \*L.C. & 370.973  
A159 Abraham, Willard. A Time for Teaching.
- 370.7  
A217 Balassi, Sylvester. Focus on Teaching: An Introduction to Education.
- \*L.C. Burrup, Percy. The Teacher and the Public School System.
- 370.973  
B90 Butts. History of Education in American Culture.
- 370.973  
C152 Calhoun. Education of Americans.
- \* L.C. Callahan, Raymond. An Introduction to Education in American Society.
- 371  
C44S Chamberlain, Leo and Leslie Kindred. The Teacher and School Organization.
- \* L.C. Grary, Ryland and Louis Petrone. Foundations of Modern Education.
- 379.73  
C922 Grossman, George and Harold Benda. Public Education in America.
- \*L.C. & 370.973  
D529a5 DeYoung. American Education.
- 370.973  
D52 DeYoung and Wynn. Introduction to Education
- 371.10023  
D768 Drayer, Adam. The Teacher in a Democratic Society.

- 2 -

- 370.973  
F8421      Frasier, James E. An Introduction to the Study of Education.
- 370.973  
G848      Grieder, Calvin and Stephen Romino. American Education.
- \* L.C. & 371.1  
H349      Haskow, Lawrence. This is Teaching: An Introduction to Education.
- \* L.C.      Hicks, William V. and Frank Blomington. Introduction to Education.
- \* L.C. & 370.973  
H69<sub>a</sub>      Hughes, James. Education in America.
- 370.973  
I56      Inlow, Gail M. Education: Mirrors and Agent of Change.
- \* L.C. & 370.973  
A512<sub>a</sub>      Johansen, John and others. American Education: The Task and the Teacher.
- \* L.C. & 370.1  
K68<sub>f</sub>      Kneller, George. Foundations of Education, 3rd/ Edit.
- 370.1  
N793      Noll, James. Foundations of Education in America.
- 370.973  
P887<sub>a2</sub>      Power, Edward. Education for American Democracy.
- 371.1  
R52P<sub>4</sub>      Richey, Robert. Planning for Teaching: An Introduction to Education, 4th. edit.
- 370.193  
S464      Solakovich, Daniel. The Schools and American Society.
- \* L.C.      Van Til, William. Education: A Beginning.

Reproductions from selected chapters of the following books have been placed in the Learning Center (room 213-B) and the Curriculum Materials Center of the Library. (3rd floor.)

EDUCATION 200

Minicourse: The Teacher

Page 18

Content Category: Study Guide (This is not a P.C. )

Purpose: To help the student test his preparation prior to taking the test, P.C. 306.

Tasks: (Have you done the tasks in the various P.C.'s to answer the following questions?)

1. Can you define the following terms used to describe characteristics of teacher behavioral? In what ways does an integrative, indirect teacher differ from a dominative, direct teacher? What does a democratic teacher do that differs from the authoritarian etc?
  - A. Integrative teacher behavior
  - B. Dominative teacher behavior
  - C. Direct teacher
  - D. Indirect teacher
  - E. Democratic teacher
  - F. Permissive teacher behavior
  - G. Authoritarian teacher behavior
2. Can you list 5 to 10 personality factors which research has shown are usually characteristics of effective teachers?
3. Can you list 3-5 characteristics of the learning environment which are most often found in the classrooms of the effective teachers?
4. Can you give several ways in which the teacher's role is changing and the reasons for the changes?  
If you need to do more study:
  - A. Read articles in folders for P.C. #301, 302 and 303 in the Learning Center
  - B. Listen to the tape in the Learning Center, Teacher Effectiveness by Bernice Wade. The tape is not a lecture but rather an informal talk on the topic.
5. Can you define the following terms as they are being used to measure effective teaching.
  - A. Accountability
  - B. Performance contracts
  - C. Merit pay
6. What is the Nat'l Educ. Assoc. position on performance contracts?  
If you need to do more study:
  - A. Read one or more articles in folders for P.C. 304
  - B. Listen to the tape in the learning Center, Accountability by Bernice Wade.

## MINICOURSE: THE TEACHER

Performance Criteria #302 (Required).

Content Category: Characteristics of the effective teacher.Prerequisite: P.C.'s 300

**Purpose:** To acquaint students with some of the recent research on identifying and/or measuring teacher effectiveness. To help students learn, (a) how to use the research references in the library, (b) about the kinds of tools and processes used by educational research schools to find some of the answers to the problems of teaching and learning.

Behavioral Objectives:

1. **Task.** Read at least one research study on identifying and/or measuring teacher effectiveness. Write a brief review of the study and the findings, and in a small group discussion comment on the implications of the study. (Be sure you select a research study, not a general article on the topic).
2. **Conditions.**
  - a. Using the library reference tools, (see attached list) locate research studies on the topic and select one or more of interest to you.
  - b. Write a brief review of the study/studies and the findings. Use the attached form.
  - c. Participate in a group discussion of the topic. Be sure to note on the class schedule the two class periods when P.C. 302 will be discussed. (See Discussion Guide # 1, P.C. 301 and 302, attached)

OR

Alternative to the small group discussion. Students who were unable to participate in the discussion groups or those who prefer independent study, the purpose of this P.C. may be achieved by writing a summary of research findings based upon:

- a. Reading a broad summary of research that has been done on the topic in addition to the one detailed research study specified above.
  - b. Listening to tape in Learning Center, Characteristics of the Effective Teacher, by B. Wade.
3. **Evaluation.** The student will be evaluated on (a) the appropriateness of the study selected; (b) the quality of the written review of the study; (c) the participation in the group discussion and (d) questions

(7)

P.C. #306

on the topic will be in the written test, P.C. #306,  
which concludes the requirements for this minicourse.

#### AIDS TO HELP YOU LOCATE A RESEARCH STUDY

(The student may use any or all of the following sources to locate a research study on the topic.

1. Locate in the Encyclopedia of Educational Research, 1970 edition the section, "Teacher Effectiveness" where all major research on topic is summarized. (Copies found on Reference Shelf at Circulation Desk, Library, and in the Curriculum Materials Center, 3rd floor, Library) Locate extensive bibliography at end of above summary and choose a research study of interest to you. Get the Journal from 3rd floor Periodicals Desk and where the study is reported fully and summarize using the attached form.
2. Use the Education Index to locate recent studies and/or summaries of research. Look under the headings, Teacher, Teaching, and locate appropriate subheadings as Personality, Qualifications, Rating, Research, Efficiency, etc.
3. Use one of the research studies reported in the books listed below. (Do not write a book report). Locate a study reported in the book and use the attached form to review it.

Anderson, Harold Homer. Studies of Teacher's Classroom Personalities, 1945.

Avent, Joseph E. The Excellent Teacher (Judgment of 1002 Teachers), 1931.

Bellack, Arno A. Theory and Research in Teaching. 1963.

Biddle, Bruce and others. Contemporary Research on Teacher Effectiveness, 1964.

Gage, N.L. Handbook of Research on Teaching, 1963.

Hart, Frank Wm. Teacher and Teaching by 10,000 H.S. Seniors, 1934

Ryans, David Garriot. Characteristics of Teachers, Their Description, Comparison, and General, 1960.

(8)

Performance Criteria #302

Title of Task: A summary of a research study on the characteristics of the effective teacher

Name of Student: \_\_\_\_\_

Bibliographical Reference:

Author		Title	
Journal or book where reported		Date	Pages

Review of the study:  
Purpose of the study.

Procedure used by the researcher in carrying out his study

Subjects used in the study. (Teacher? What kind of? etc.)

Findings in the study. (Student's personal reactions)

(9)

Evaluation of the sutyd. (Student's personal reactions)

Date of group discussion \_\_\_\_\_

\_\_\_\_\_  
Instructor's Name

\_\_\_\_\_  
Evaluation

PERFORMANCE CRITERION: MD 1

PURPOSE:

Purposes are the following: (1) To familiarize students with Piaget's theory of mental development and (2) to apply Piaget's theory of mental expectations through observation of a child or adolescent.

BEHAVIORAL OBJECTIVE:

Observe a child or adolescent who age-wise is at one of Piaget's stages of mental development. Write a description of observed behavior (asking questions, playing, or other activity) which suggests some kind of mental activity. How does this behavior illustrate what Piaget believes a child can or cannot do at this particular stage?

CONDITIONS:

1. Read David Elkind's, "Giant in the Nursery -- Jean Piaget" (handout)  
Also read "Jean Piaget's Studies in Child Psychology" (handout)  
Read Chapter Two, "The Growth of Logical Thought" from your text: K. Lovell's An Introduction to Human Development.
2. Write answers to the following study questions. (These are not to be handed in; questions related to this material will appear on next examination.)
  - a. Define and give examples of: egot-centrism, animism, conservation of an object, transformation, symbolic play.
  - b. Identify each of Piaget's four stages of mental development. Indicate what a child is capable of doing mentally at each stage.
3. Paper should not be more than one page in length.
4. Due date is one week following distribution of this PC.

EVALUATION:

Evaluation will be by the instructor in regard to:

Format and Readability

Thoroughness of Observation

Specific Examples Illustrating Piaget's Theory

ALTERNATIVES: None



PERFORMANCE CRITERION: LD1

PURPOSES:

Purposes are to help teachers become aware of different levels of language ability and the sequential development of language.

BEHAVIOR OBJECTIVE:

Determine the language level of a child by administering the attached language ability test.

CONDITIONS:

1. Choose a child between the ages of 2 and 7.
2. Follow these steps in administering the test:
  - a. Show picture to child; wait for response or reaction.
  - b. Look under "Expressiveness" column and note level demonstrated. Make specific notes concerning child's behavior.
  - c. Look under "Word Meaning" and note level. Can child name objects in picture, with or without encouragement? Note specific examples. (Interpretation, refers to whether or not the child can tell what's going on in the picture).
  - d. Look under "Sentence Structure" and note level. Does the child talk in isolated words or phrases or does he use complex word combinations?
  - e. Point to objects and ask, "What is this?" or say, "Point to the tree", etc. Note how child defines objects. For example, in addition to identifying the wagon, does he tell how it is used.
3. Paper should be no longer than two pages, both sides.

Evaluation:

Evaluation will be by the instructor on basis of comprehensiveness of written report and use of pertinent illustrations.

Speech and Hearing Center      Levels of Language Abilities      North Carolina Memorial Hospital

Patient \_\_\_\_\_ Diagnosis \_\_\_\_\_ Age \_\_\_\_\_ NCMH# \_\_\_\_\_ Address \_\_\_\_\_

Expressiveness		Word Meaning	Sentence Structure	Ability to Define
Level 1	Does not respond until encouraged	Level 1 Identification (Naming)	Level 1 Isolated words or phrases	Level 1 Can't point to picture or define it.
Level 2	Responds with one or more spontaneous remarks but can't continue	Level 2 Description	Level 2 Sentence structure with one subject and one verb	Level 2 Can point to picture of object but still can't define word
Level 3	Responds with one or more spontaneous remarks and continues with another remark or two when requested.	Level 3 Interpretation (inferences)	Level 3 Sentence structure with compound subject, predicate, or object	Level 3 Defines word by stating use of object
Level 4	Responds freely, continues when requested, and is highly productive.	Level 4 Narrative Interpretation (Two steps of a time sequence)	Level 4 Compound sentence containing a conjunction other than "and" or, complex sentence containing dependent clause	Level 4 Defines word by describing object
Level 5	Responses are at Level 3 or 4 but he includes clinician in conversational manner.	Level 5 Evaluation Interpretation ("moral")	Level 5 Sentences containing more than one dependent clause	Level 5 Defines word by giving generic term or class to which object belongs
Comments		Comments	Comments	Comments

